

Canadian Residents' Corner / Coin canadien des résidents en radiology

Case of the Month #146

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Clinical Presentation

A 17-year-old boy presented with a 6-month history of unrelenting right groin pain causing night awakenings. There

was mild response of pain to naproxen although other medications were ineffective. The patient had no fever. There was local discomfort on palpation and pain on internal rotation (Figures 1–4).

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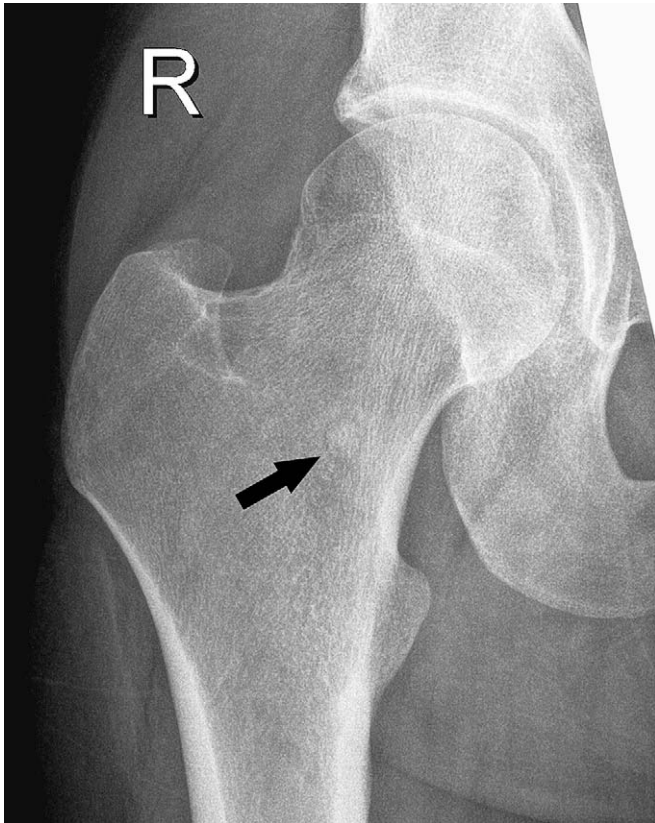


Figure 1. Anteroposterior radiograph of the right hip shows a 6-mm, sclerotic focus surrounded by a thin, uniform, lucent rim projecting over the femoral neck. No gross peripheral sclerosis or periosteal reaction is shown.



Figure 2. Technetium-99m-labeled methylene diphosphonate triple-phase bone scan (delayed phase scan—3 hours) shows focal increased uptake at the right femoral neck.

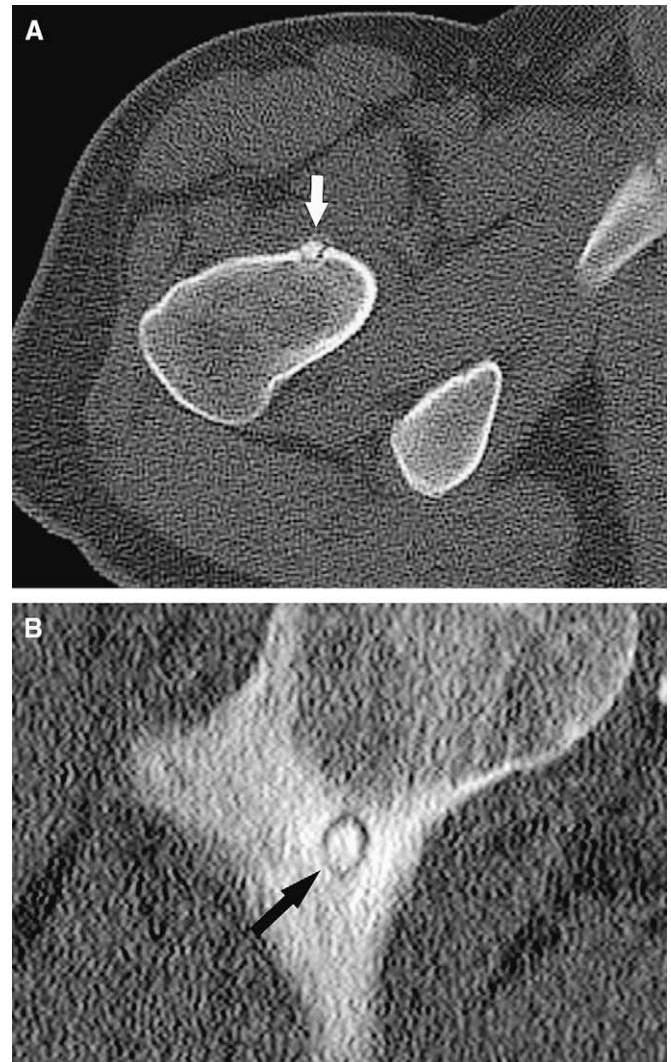


Figure 3. (A) Thin-slice, low-dose computed tomography axial image and (B) coronal reformat localize the lesion to the anterior cortex of the femoral neck. The lesion has a densely mineralized core with a surrounding thin, uniform, lucent rim and lack of periosteal reaction. There is a very thin margin of sclerosis seen in the adjacent cancellous bone.

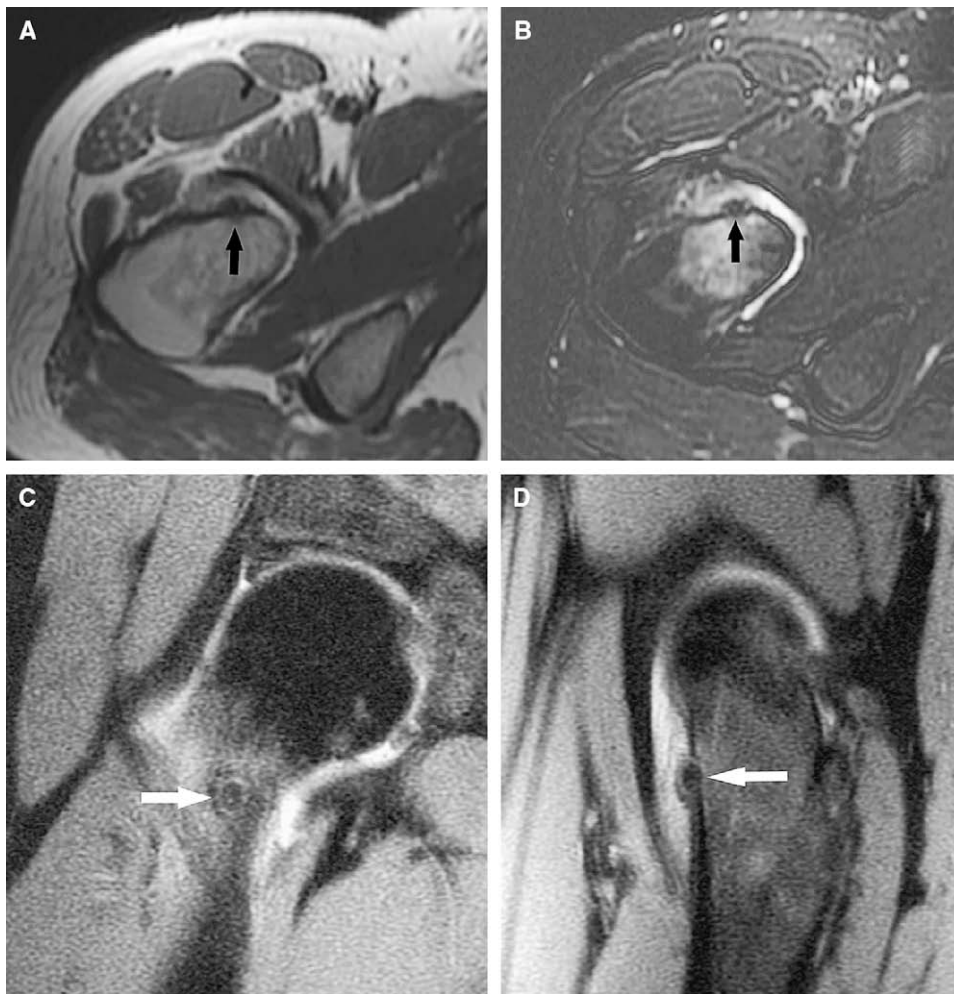


Figure 4. Magnetic resonance imaging shows the center of the lesion to be of low signal on both (A) T1W and (B) T2W images in keeping with mineralization. This is surrounded by intermediate-signal rim on (C and D) fat suppressed proton density weighted images, which represents the noncalcified rim of the nidus. High signal seen on the (B) fat-suppressed T2W image surrounding the nidus is consistent with marrow oedema. A small hip joint effusion also is present.

Case #146

Diagnosis:

Radiologic Findings:

Discussion:
